IC35516T

IC35516G

High Port Count **Single Chip** Gigabit Solution for Layer 2 switching, Layer 3 IP **Routing** and L2-4 packet ltering

Choose from **two design** versions:

❑ 12 ports 10/100/1000BaseT with 4 ports auto-selectable GBIC/1000BaseT Copper

❑ 12 ports GBIC for Fiber backbones with 4 ports auto-selectable GBIC/1000BaseT Copper

Supports **Layer 3 Routing** for IP with Router Standby Protocol, Router Discovery Protocol, RIP I/II, OSPF, including static route table (insertion/deletion) and Layer 3 IGMP multicasting

Deploy multimedia services (voice, video, audio, telephony) throughout your network with **multi-service** technologies: IP multicast with IGMP and 256 multicast groups

Highest Level of IEEE 802.1p Priority Queues supported – 8 on each port. This advanced QoS software option is ideal for sophisticated Ethernet service, including multi-tenant unit (MTU) installations.

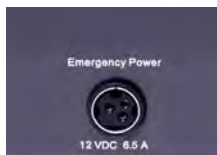**Multiple Management Options** : SNMP, Telnet, RMON, console

Software Redundancy: Two banks for storing rmware

Jumbo Packet: Will support frames up to 16384 bytes

Security: Station move detection, Duplicate IP address

VLAN: 4000 virtual LANs supported with IEEE 802.1Q tagging

Emergency backup, **Redundant Power Supply** provides optional redundant power.

The IntraCore 35516 Layer 3 family of Gigabit Ethernet switches is Asanté's high performance, flexible range of backbone router switches. Tailor this IntraCore® switch with hardware and software to precisely match your network needs—today and in the future.

By using Layer 3 routing with the IntraCore® 35516, you can subnet a standard IP network into multiple subnets.

With 16 ports of Gigabit Ethernet offered in a single flexible design, your cost of ownership is reduced considerably over other vendors' switches by using mix-and-match GBIC/Copper ports.

By using a single-chip state-of-the-art architecture with shared memory, wire speed switching at Layer 2 and Layer 3 routing is achieved on all ports.

Multicast Support
The IC 35516 supports IGMP versions 1 and 2, IP multicast routing protocol DVMRP v3, and supports up to 2048 IP multicast groups.

Jumbo Packet Support
Jumbo Packet transmission is a requirement seen largely in Higher Education, IP Storage Area Networks (SAN), Video on Demand, Research and Distributed Scientific computing environments this commonly involves high level traffic flows of web, video and database transaction processing between host and client.

Our implementation of Jumbo Packet support allows oversize frames of up to 16384 bytes to be transmitted. Asanté's end-to-end Jumbo Packet support includes FriendlyNET® GigaNIX network cards also.

Low Cost Failure Backup Power Option
New to Asanté is the provision of an optional DC backup power supply to ensure continued operation in situations of primary power failure. Used with Uninterruptible Power Supplies, Asanté IC 35516 can ensure high productivity and extremely low downtime on mission critical networks.

The IC35-EPS12 operates at 12VDC and is used in standby mode simultaneously on-line with the 90-260VAC primary power system. Should the primary power fail, the IC35-EPS12 automatically goes live and both LED indication on the switch hardware and SNMP alarms will be enabled.

Market Applications
This family of switches is ideally positioned for those organizations and businesses that operate web based, multimedia and high performance networks including, MTU, IP Storage Area Networking (SAN), Video on Demand, Higher Education, Scientific Research, E-Business Enterprise applications (SAP, ERP, CRM, and SCM) in Manufacturing, Retail, and Public Services including Government and Healthcare where control of latency and jitter along with traffic management by user and service type is critical.

FEATURES

Single-Chip: **Layer 2/3 Switch/Router:**	Forwarding rate of 24 million packets per second at full wire speed over all network interfaces in a unit 32 Gbps switch fabric (per unit) minimizes blocking and latency Runs cooler and more reliably than older, multi-chip designs
Extensible Platform:	Choose from 2 popular Gigabit configurations with auto-selectable switching - 12 ports 10/100/1000BaseT and 4 dual function ports of GBIC/1000BaseT - 12 ports GBIC and 4 dual function ports of GBIC/1000BaseT Run multimode or singlemode fiber 1000 Mbps (1000BaseSX/LX/LH/LZ) using GBIC transceivers Run standard Category 5E UTP copper cables up to 100 meters at 1000 Mbps (1000BaseT)
IP Routing:	Classless Inter-Domain Routing (CIDR), RIP I/II, RIP 1 compatible, split horizon, poison reverse, Authentication (plain text and MD5), Route Redistribution, OSPF V2 including – External Route summarization, Stub areas, Authentication, Virtual links, Default Route Originate, ICMP, ARP, Proxy ARP, Static routes support (Routing table insert/delete) – 16,000 routing table entries, Router Standby Protocol, Router Discovery Protocol, IGMP V1, V2 and IP Multicast Routing Protocol DVMRP
Filtering Routing Information: **(Using ACL)**	- Preventing Routing Updates through interface - Controlling Advertising of Routes in Routing updates - Controlling Processing of Routing updates - Filtering sources of Routing Information - Redistributing Routing Information (Route Maps)
Class of Service/QoS	Supports multiple priority queues to ensure mission critical applications get the bandwidth and priority they need. IEEE802.1p: 8 queues per port.
Traffic Filtering & Firewall:	Access Control Lists (ACL) – Cisco-like - Standard ACL - Extended ACL Filtering – IP address Filtering – based on Layer 4 data
Multi-Services for Multimedia:	Internet group management protocol (IGMP V1/2) optimizes multicast bandwidth by allowing multicast traffic only to registered users; minimizes denial of service attacks from unknown sources. 2K multicast groups are supported.
Virtual LANs:	Logically organize nodes into 4000 port based VLANs compliant with IEEE 802.1Q with VLAN Tagging and double-Dot1Q tagging.
Addresses	Supports 8000 MAC addresses with MAC address aging management and MAC/IP address table display Primary IP address – one Secondary IP addresses – multiple Variable length Subnet Mask (VLSM)
Security	Station move detection and Duplicate IP address detection. Filtering based on IP addresses. Neighbor Router Authentication
Spanning Tree	IEEE 802.1D supported
Jumbo Packets	Supports frames up to 16384 bytes
Management Console Interface: Command Line: SNMP: RMON: General Information: Port Configuration: Other:	 CLI telnet or out-of-band via front panel console port CLI command line for industry standard syntax UI SNMP v1 supported with MIB II, RMON, 802.1Q, 802.1p, Bridge MIB and Asante private MIB, RIP MIB 4 Groups (Stats, History, Alarms, Events) Software version, dual firmware banks; admin, system and bootstrap info; switch address and uptime system clock State (forwarding, blocking) set by STP, status (enabled, disabled), link status (up, down), priority and security. Detailed statistics include TX counters (total frames, total bytes, dropped frames), RX counters (total frames, total bytes, unicast, non-unicast), frame counters (multicast, broadcast, by packet sizes), collisions and errors (undersized, oversized, CRC/alignment, fragments, FCS, late events, total) Trace Route, PING tools, Syslog

Firmware Configuration	Configuration files uploading/downloading
	Image files downloading for updating firmware, TFTP
Software updating:	BOOT module, software redundancy.
IP/UDP Helper:	- BOOTP
	- DHCP
	- TFTP
	- DNS
	- IEN-116
	- Time Server
	- NetBIOS Name server
	- NetBIOS Datagram Server
	- TACACS Server
	- RADIUS Server

SPECIFICATIONS

Connectors:	Gigabit Ethernet with Auto-Uplink™ (10/100/1000BaseTX): RJ-45 or GBIC holder for GBIC transceiver module
	Console: Serial (RS-232): DB9
Status Indicators:	Separate link-activity, speed (10/100/Gigabit) and duplex (full or half) LEDs for each port; system power, emergency backup power.

Physical Characteristics

IntraCore® 35516-G	17.5 x 14.0 x 2.7 inches (444.5 x 355.6 x 68.58 mm), 9.0 lbs (4.1 Kg)
IntraCore® 35516-T	17.5 x 10.0 x 1.8 inches (444.5 x 254 x 45.72 mm), 8.0 lbs (3.6 Kg
Mounting:	Install into a standard 19-inch rack (1 RU height) or placed on a desktop; rackmount kit and rubber feet included

Environmental Range

Operating Temperature:	32º to 104º F (0º to 40º C)
Relative Humidity:	10% to 90% non-condensing
Power:	Auto-switching, 100/240 VAC, 50/60 Hz; grounded IEC cord
Redundant DC Power:	12 VDC Auto switching from main 110/240 VAC for emergency backup

Standards Compliance

IEEEE:	IEEE 802.1D spanning tree and bridge filters
	IEEE 802.1p prioritization (class of service)
	IEEE 802.1Q virtual LAN (VLAN)
	IEEE 802.3z 1000BaseSX over 50 micron multi-mode fiber; maximum distance 1,804 feet (550 meters)
	IEEE 802.3ab 1000BaseT over Category 5 UTP (4 pairs); maximum distance 328 feet (100 meters)
	IEEE 802.3u 100BaseTX over Category 5 UTP (2 pairs); maximum distance 328 feet (100 meters)
	IEEE 802.3 10BaseT over Category 3 UTP (2 pairs); maximum distance 328 feet (100 meters)
IETF:	RFC 1155 SMI
	RFC 1757 RMON
	RFC 1157 SNMP
	RFC 1493 Bridge MIB
	RFC 1213 MIB II
	Asanté Private MIB
	RFC 1721 RIP-2 MIB
Safety:	UL 1950, CUL, TUV/GS,
Emissions:	FCC Class A, CE

Technical Support and Warranty

IntraCare™:	IntraCare: Free technical support and advanced warranty support for 3 years. Includes free telephone support, 24-hour support via web and ftp, complete product warranty with 2nd business day (within US) advanced replacement and software maintenance agreement.
AsanteCare:	Optional extended technical support and product warranty for 2 additional years.

ORDERING INFORMATION

Model	Description	Asanté Part Number*
IntraCore 35516-G	12-port GBIC and 4 dual function ports GBIC/1000BaseT copper. Layer 2/3/4	99-00748-01
IntraCore 35516-T	12-port 10/100/1000BaseT and 4 dual function ports GBIC/1000T copper. Layer 2/3/4	99-00749-01
IC35-EPS12	Emergency Redundant Power Supply, 12 VDC for IC3548/35160/35516	99-00777-01
GBIC 1000SX**	1000BaseSX GBIC multimode SC connectors	99-00609-01
GBIC 1000LX**	1000BaseLX GBIC multimode 1km/singlemode 10km	99-00629-01
GBIC 1000LH**	1000BaseLH GBIC singlemode 20km	99-00769-01
GBIC 1000LZ**	1000BaseLZ GBIC singlemode 120km	99-00770-01
GBIC 1000T**	1000BaseT GBIC metal 100 meters	99-00673-01
GBIC 1000TP**	1000BaseTP GBIC plastic 100 meters	99-00647-07

*For international part numbers, please refer to ASD Marketing. **See GBIC datasheet and Asante's price list for additional GBIC's and GBIC price bundles.

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